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Jul 7, 1998

US-PAT-NO: 5777196

DOCUMENT-IDENTIFIER: US 5777196 A

TITLE: Inbred corn plant 01CSI6 and seeds thereof

DATE-ISSUED: July 7, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hall; Michael A.	Spencer	IA	N/A	N/A

## ASSIGNEE INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Dekalb Genetics Corporation	Dekalb	IL	N/A	N/A	02

APPL-NO: 8/ 795040

DATE FILED: February 5, 1997

INT-CL: [6] A01H 5/00, A01H 4/00, A01H 1/00, C12N 5/04

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FIELD-OF-SEARCH: 800/200, 800/205, 800/250, 800/DIG.56, 47/58, 47/DIG.1, 435/172.3, 435/172.1, 435/412, 435/424, 435/430, 435/431.1

REF-CITED:

U.S. PATENT DOCUMENTS

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6040497

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<u>3903645</u>	September 1975	Bradner	800/200
<input type="checkbox"/>	<u>4368592</u>	January 1983	Welch	47/58
<input type="checkbox"/>	<u>4517763</u>	May 1985	Beversdorf et al.	47/58
<input type="checkbox"/>	<u>4581847</u>	April 1986	Hibberd et al.	47/58
<input type="checkbox"/>	<u>4594810</u>	June 1986	Troyer	47/58
<input type="checkbox"/>	<u>4607453</u>	August 1986	Troyer	47/58
<input type="checkbox"/>	<u>4626610</u>	December 1986	Sun	800/1
<input type="checkbox"/>	<u>4627192</u>	December 1986	Fick	47/58
<input type="checkbox"/>	<u>4629819</u>	December 1986	Lindsey	800/1
<input type="checkbox"/>	<u>4642411</u>	February 1987	Hibberd et al.	800/1
<input type="checkbox"/>	<u>4654465</u>	March 1987	Lindsey	800/1
<input type="checkbox"/>	<u>4658084</u>	April 1987	Beversdorf et al.	800/1
<input type="checkbox"/>	<u>4658085</u>	April 1987	Beversdorf et al.	800/1
<input type="checkbox"/>	<u>4677246</u>	June 1987	Armond et al.	800/1
<input type="checkbox"/>	<u>4686319</u>	August 1987	Shifriss	800/1
<input type="checkbox"/>	<u>4731499</u>	March 1988	Puskaric et al.	800/1
<input type="checkbox"/>	<u>4737596</u>	April 1988	Seifert et al.	800/1
<input type="checkbox"/>	<u>4751347</u>	June 1988	Erickson	800/1
<input type="checkbox"/>	<u>4767888</u>	August 1988	Ayotte et al.	800/1
<input type="checkbox"/>	<u>5276263</u>	January 1994	Foley	800/200

## FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY
0 270 356	February 1987	EPX

## OTHER PUBLICATIONS

Phillips et al. "Cell?Tissue Culture and In vitro manipulation," In Corn and Corn Improvement, 3rd edition, ASA publication 18, p. 358 1988.

Chandler et al., "Two Regulatory Genes of the Maize Anthocyanin Pathway Are Homologous: Isolation of B Utilizing R Genomic Sequences," The Plant Cell, 1:1175-1183, 1989.

Culotta, "How many Genes Had to Change to Produce Corn," Science, 252:1792-1793, 1991.

Duvick, "Genetic Contributions to Yield Gains of U.S. Hybrid Maize, 1930 to 1980," Genetic Contributions to Yield Gains of Five Major Crop Plants: Proceedings of a Symposium sponsored by Div. C-1, Crop Science Society of America, Dec. 2, 1981 in Atlanta, Georgia; W.R. Fehr, Crop Science Society of America and American Society of Agronomy, Madison, Wisconsin, pp. 15-47.

Green & Rhodes, "Plant Regeneration in Tissue Cultures of Maize," Maize for Biological Research, ed. W.F. Sheridan, A Special Publication of the Plant Molecular Biology Association, pp. 367-372, 1982.

Hauptmann et al., "Evaluation of Selectable Markers for Obtaining Stable Transformants in the Gramineae," Plant Physiol., 86:602-606, 1988.

Larson & Hanway, "Corn Production," Corn and Corn Improvement, ed. G.F. Sprague, No. 18 in Agronomy Series, American Society of Agronomy, Inc., Madison, Wisconsin, pp. 625-669, 1977.

Ludwig et al., "A Regulatory Gene as a Novel Visible Marker for Maize Transformation," Science, 247:449-450, 1990.

- Poehlman, Breeding Field Crops, 3rd ed., AVI Publishing Company, Westport, Connecticut, pp. 469-481, 1987.
- Sprague & Eberhart, "Corn Breeding," Corn and Corn Improvements, ed. G.F. Sprague, No. 18 in Agronomy Series, American Society of Agronomy, Inc., Madison, Wisconsin, pp. 305-323, 1977.
- Troyer, "A Retrospective View of Corn Genetic Resources," Journal of Heredity, 81:17-24, 1990.
- Withers & King, "Proline: A Novel Cryoprotectant for the Freeze Preservation of Cultured Cells of Zea mays L.," Plant Physiol., 64:675-578, 1979.
- Armstrong & Green, "Establishment and Maintenance of Friable Embryogenic Maize Callus and the Involvement of L-Proline," Planta, 164:207-214, 1985.
- Edallo et al., "Chromosomal Variation and Frequency of Spontaneous Mutation Associated With in vitro Culture and Plant Regeneration in Maize," Maydica, 26:39-56, 1981.
- Gordon-Kamm et al., "Transformation of Maize Cells and Regeneration of Fertile Transgenic Plants," The Plant Cell, 2:603-618, 1990.
- Green & Phillips, "Plant Regeneration from Tissue Cultures of Maize," Crop Science, 15:417-421, 1975.
- Hallauer et al., "Corn Breeding," Corn and Corn Improvement, eds., Sprague et al., Madison, Wisconsin, Ch. 8, pp. 463-564, 1988.
- MBS, Inc., Genetics Handbook, 17th ed., MBS, Inc., Ames, Iowa, pp. 3 & 19, 1990.
- Meghji et al., "Inbreeding Depression, Inbred and Hybrid Grain Yields, and Other traits of Maize Genotypes Representing Three Eras," Crop Science, 24:545-549, 1984.
- Phillips et al., "Cell/Tissue Culture and in vitro Manipulation," Corn and Corn Improvement, eds., Sprague et al., Ch. 5, pp. 345-387, 1988.
- Rieger et al., Glossary of Genetics and Cytogenetics, Classical and Molecular, Springer-Verlag, Berlin, p. 116, 1976.
- Rhodes et al., Genetically Transformed Maize Plants from Protoplasts, Science, 240:204-207, 1988.
- Wright, "Commercial Hybrid Seed," Hybridization of Crop Plants, Fehr et al., eds. Am. Soc. of agron.-Crop Sci. Soc. of Am., Madison, Wisconsin, Ch. 8, pp. 161-176, 1980.
- Wych, "Production of Hybrid Seed Corn," Corn and Corn Improvement, eds., Sprague et al., Madison, Wisconsin, Ch. 9 pp. 565-607, 1988.
- Gerdes and Tracy, "Diversity of Historically Important Sweet Corn Inbreds as Estimated by RFLP's, Morphology, Isozymes, and Pedigree," Crop Science, 34(1):26-33, 1994.
- Conger et al., "Somatic Embryogenesis from Cultured Leaf Segments of Zea Mays," Plant Cell Reports, 6:345-347, 1987.
- Duncan et al., "The Production of Callus Capable of Plant Regeneration from Immature Embryos of Numerous Zea Mays Genotypes," Planta, 165:322-332, 1985.
- Fehr (ed.), Principles of Cultivar Development, vol. 1: Theory and Technique, pp. 360-376, 1987.
- Gaillard et al., "Optimization of Maize Microspore Isolation and Culture Condition for Reliable Plant Regeneration," Plant Cell Reports, 10(2):55, 1991.
- Jensen, "Chromosome Doubling Techniques in Haploids," Haploids and Higher Plants--Advances and Potentials, Proceedings of the First International Symposium, University of Guelph, Jun. 10-14, 1974.
- Nienhuis et al., "Restriction Fragment Length Polymorphism Analysis of Loci Associated with Insect Resistance in Tomato," Crop Science, 27:797-803, 1987.
- Pace et al., "Anther Culture of Maize and the Visualization of Embryogenic Microspores by Fluorescent Microscopy," Theoretical and Applied Genetics, 73:863-869, 1987.
- Poehlman & Sleper (eds), Breeding Field Crops, 4th Ed., pp. 172-175, 1995.
- Rao et al., "Somatic Embryogenesis in Glume Callus Cultures," Maize Genetics Cooperation Newsletter, vol. 60, 1986.
- Songstad et al. "Effect of 1-Aminocyclopropane-1-Carboxylic Acid, Silver Nitrate, and Norbornadiene on Plant Regeneration from Maize Callus Cultures," Plant Cell Reports, 7:262-265, 1988.
- Stuber et al., "Techniques and scoring procedures for starch gel electrophoresis of enzymes of maize C. Zea mays, L.," Tech. Bull., N. Carolina Agric. Res. Serv., vol. 286, 1988.
- Wan et al., "Efficient Production of Doubled Haploid Plants Through Colchicine Treatment of Anther-Derived Maize Callus," Theoretical and Applied Genetics, 77:889-892, 1989.
- Beckmann and Soller, "Restriction Fragment Length Polymorphisms in Plant Genetic Improvement," Oxfors Surveys of Plant Molecular & Cell Biology, 3:196-250, 1986.
- Smith and Smith, "Restriction Fragment Length Polymorphisms can Differentiate

Among U.S. Maize Hybrids," Crop Sci., 31:893-899, 1991.

ART-UNIT: 169

PRIMARY-EXAMINER: Benzion; Gary

ATTY-AGENT-FIRM: Arnold, White & Durkee.

ABSTRACT:

According to the invention, there is provided an inbred corn plant designated 01CSI6. This invention thus relates to the plants, seeds and tissue cultures of the inbred corn plant 01CSI6, and to methods for producing a corn plant produced by crossing the inbred plant 01CSI6 with itself or with another corn plant, such as another inbred. This invention further relates to corn seeds and plants produced by crossing the inbred plant 01CSI6 with another corn plant, such as another inbred, and to crosses with related species. This invention further relates to the inbred and hybrid genetic complements of the inbred corn plant 01CSI6, and also to the RFLP and genetic isozyme typing profiles of inbred corn plant 01CSI6.

39 Claims, 0 Drawing figures